## FOREST PRESERVATION STRATEGY

A TASK FORCE REPORT REQUESTED BY THE COUNTY EXECUTIVE



The Linden Oak is a Montgomery County Bicentennial tree adjacent to Rockville Pike at Beech Drive. This 250-year-old white oak is 95 feet tall and its branches spread 130 feet.

A strategy to increase the quantity of forest canopy, improve the quality of forests and trees, and protect and restore forest ecosystems throughout the county.



MONTGOMERY COUNTY, MARYLAND OCTOBER 2000





Montgomery County, like many other jurisdictions, struggles to achieve a balance between the desire for community growth and the demand for forest and tree preservation. In my December 7, 1999, State of the County address, I talked about how essential it is to protect the county's few remaining critical natural areas and stem the loss of forest habitat and tree canopy in Montgomery County.

At that time I called for a multi-disciplinary task force to help develop a Countywide Forest Preservation Strategy. The task force has developed a plan to increase the quantity and improve the quality of forests and trees, restore and protect natural forest ecosystems, and enhance the poor condition of street trees in the county's most developed areas. Presented in this report are the task force's recommendations and action plans that I will review as part of the county budget process.

Anticipating the task force's concerns about preserving upland forests, I signed a contract on October 19th to acquire the county's first environmentally significant tract of land under the Legacy Open Space program. The environmentally significant 215-acre Bucklodge Forest was one of the largest privately owned contiguous upland forest tracts in the county. It will be managed to retain and nurture its natural forest state.

I would like to thank the task force member organizations, and the individuals who participated in the development of the preservation strategy for their interest and dedication. They have helped provide guidance for a forest preservation legacy that they can point to with pride and have played a vital role in enhancing the environmental quality of our diverse community.



#### WHAT'S INSIDE?



This strategy document is divided into color-coded sections that lay out the **issues**, provide **strategies** with goals and action items, and describe the **task force** process, including contact information.

## FOREST PRESERVATION ISSUES

**Issues:** The first few pages introduce you to some unusual sounding places like *Riparian Forests* and *Upland Forests* which are just technical ways of describing the woods down by the stream or up on the hill. You will also find a very frank discussion of why our street trees need our help.

#### FOREST PRESERVATION STRATEGIES

**Strategies:** The center section offers some very specific goals and action items to help focus our efforts on what we need to do to assess, manage, and restore our forests and trees. These goals and action items are the recommendations of a task force of diverse community organizations that are diverse in their daily interests, but who share a common interest in preserving forests and trees in Montgomery County.

#### FOREST PRESERVATION TASK FORCE

Task force: In the final section, you can review the process used by the task force to study the issues and develop the goals and action items recommended in the Forest Preservation Strategy.

## FOREST PRESERVATION ISSUES

Our forests have changed dramatically since the first residents moved in. When these Europeans settled in what is now Montgomery County, they found a vast wilderness of huge trees and wildlife that included elk and bear. Over the next 300 years, most of this wilderness forest was cleared for fuel and fiber and the land put to the plow.

Today, when we look around the rural agricultural landscape of the county, we see the remnants of three centuries of intense agricultural activity. As another century ends, we witness a profound land use change occurring in the county as agricultural lands and the last vestiges of

45%

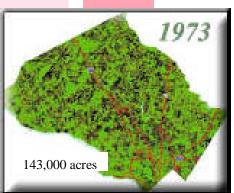
forests give way to urban and suburban development. Since 1973 we have lost about 54,000 acres of tree canopy. Not surprisingly, most forest preservation issues today are along this rural-urban edge. Our demand for suburban homes, convenient transportation, and business services compete with our ability to preserve our forests, just as our demand for agricultural crops competed with forest preservation in the past.

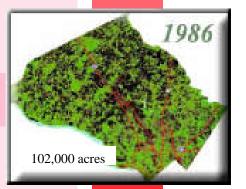
However, through development planning and parkland acquisition programs, the county has already achieved more success in forest preservation than many other similarly developed jurisdictions. Most significant is the vast Stream Valley Park system (27,000 acres) established throughout the county by the Maryland-National Capital Park and Planning Commission. This is a unique forest preserve that provides a riparian buffer along hundreds of miles of urban streams. We have also witnessed a remarkable transformation in our older communities where, over time, a forest canopy of street and yard trees has returned.

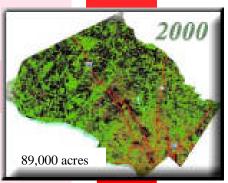
The issues introduced in this section describe the most pronounced areas of concern for a forest preservation strategy. Within each issue area we develop strategies that are appropriate to both the intensity and overall character of the land use.

**CHANGE OVER TIME** 

PERCENT FOREST COVER











In stark contrast to a forest cover of nearly 100 percent when the first Europeans arrived 300 years ago, the forest cover in 1973 had decreased to 45 percent and by 2000 to only 28 percent. Most of the loss over the past 25 years is due to clearing for new development with little replanting and inadequate maintenance.

## **OUR GREEN INFRASTRUCTURE**

For most of us, the simple statement, *Trees are good* is sufficient to explain why we should do as much as we can to preserve trees and forests that make up our green infrastructure. Every day, we are touched by the trees that shade our homes and streets, and that soften the hard edges of the buildings and pavement of our commercial strips and malls. On weekends we retreat to our county parks to share a natural forest environment with a diverse community of plants and animals.

In addition to the aesthetic qualities of trees and forests that we enjoy in our communities, studies have shown that trees also provide significant year-round energy savings. Winter windbreaks can lower heating costs by 10 to 20 percent. Summer shade can lower cooling costs by 15 to 35 percent. Every tree that we plant and maintain in our communities saves \$20 in

energy costs each year.



However, in spite of our past and present efforts to plant trees and protect forests, our trees and forests are in trouble. Large upland forest patches are being fragmented by land and road development and replaced by lawns, decks, and asphalt. This fragmentation leads to habitat loss and isolation of forest patches without adequate connections between patches. Extensive parking lots, built without adequate shade tree planting, add to the heat island phenomenon.

We replant over 400 street trees each year, but we are losing 900 street trees each year to diseases, insects, and physical damage. A street tree with an

average life expectancy of 30 to 40 years, should be maintained every five to seven years, yet our present county budget provides for maintenance on each street tree only once every 90 years.

Development guidelines protect or replant 500 acres of steep slopes and 160 acres of streamside forests each year. The majority of this reforestation is associated with stream valleys. Approximately 240 acres of forests are lost each year, most of it upland forest. Since most replanting occurs in stream valleys, the upland forest loss due to development is permanent. Riparian forest buffers provide the most protection to the water and habitat quality of our streams, yet almost 50 percent (21,500 acres) of areas within 100 feet of streams are not forested and 14,000 acres of existing forested riparian buffers are in agricultural areas not protected by easement programs.

Our efforts to address other important environmental issues, including Smart Growth policies, storm water management guidelines, and agricultural land preservation programs, sometimes result in the loss of trees and forests. We must agree on how best to balance our objectives while meeting our goals for forest and tree protection.

The Forest Preservation Strategy is the beginning of a long-term commitment by the citizens and government of Montgomery County to identify and implement the measures needed to assess, manage, and restore our forests and trees at every opportunity.

Trees require decades to mature, forests require centuries to develop and stabilize. We need to think of these trees and forests as our green infrastructure, not unlike other urban infrastructure, such as streets, sewer lines, buildings, and storm water management ponds. Like these facilities, trees and forests require long-term commitment by the citizens and government of Montgomery County to identify needs, provide regular funding, and implement programs on a timely and ongoing basis. Additional resources are needed to increase and nurture forest cover and to restore and sustain the suburban/urban tree canopy as it declines.



A forest ecosystem is a dynamic and long-lived entity. To treat it as anything less would be an injustice. It is not a commodity, it is not a crop .. it is a living community with many levels of life and unfathomable complexity.

## FOREST PRESERVATION STRATEGY

## VISION:



Our vision is to increase the quantity and quality of forests and trees, and to restore and protect the natural forest ecosystems in Montgomery County. This strategy provides the first steps toward fulfilling our mission—to manage the forest and tree resources that already exist, to restore unforested and marginal forest areas to natural forest ecosystems, and to assess the need for additional preservation initiatives.

Within the urban areas of the county, the emphasis will be on increasing and maintaining the tree canopy. We support the tree canopy goals developed by *American Forests* as a starting point for Montgomery County. (see adjacent table inset)

Basic land character Suburban residential Urban residential

The Forest Preservation Strategy is the beginning of a longterm commitment by the citizens and government of

Montgomery County. This strategy recognizes that forest and tree canopy preservation is a responsibility that must be shared by our government and every private landowner. We must each do our part to preserve the forest resources that we have and restore forests and tree canopy throughout the county for a healthier environment and community.

# Basic land character Canopy cover as a percent of land area Suburban residential 50% Urban residential 25% Central business districts 15% Overall 40%

## WHERE DO WE START?



Many of the elements of the Forest Preservation Strategy fall under existing county and state agency programs. However, none of these programs approaches forest preservation as a primary policy focus, and often other competing goals take precedence. To achieve the goals and action items recommended in this strategy, the task force believes the county will need to have staff whose specific responsibility is coordinating and advocating for forest and tree programs.

The task force recommends the following action items:

- 1. Hire the staff as authorized in Article V of Chapter 22A-30, Forest Conservation, of the County Code to coordinate interagency, educational, public outreach, and planning initiatives to promote forest and tree preservation programs.
- 2. Establish a permanent Forest Preservation Web site to provide technical information, track issues, and act as a clearinghouse for interagency and other forest preservation programs in the county.
- 3. Include forest preservation data on riparian and upland canopy, street tree planting and maintenance, and forest cover on private and public lands as county environmental indicators.
- 4. Increase the county forest preservation efforts and funding by 10 percent per year for the next five years.



## RIPARIAN FORESTS

Montgomery County has more than 1,500 miles of open streams. The Countywide Stream Protection Strategy (1998) identified excellent and good quality streams throughout the county. Often the highest quality streams are found in watersheds with low impervious percentages throughout the watershed and wide forested buffers and contiguous forest canopy. Excellent water quality is found where small feeder streams were protected within the boundaries of large wooded areas. Water quality in the large stream systems declined in more intensely developed watersheds where small streams are piped, storm water management is absent, or the forest canopy was removed or reduced and stream buffers are lacking or

inadequate. Riparian forests help filter pollutants, shade streams, and provide vital habitat for terrestrial and aquatic

life.

Various state (*Riparian Releaf*) and federal programs (*Conservation Reserve Enhancement Program*) provide a unique and time sensitive opportunity to *replant* the riparian forests on agricultural land in the western third of the county. These programs do little toward preserving privately owned riparian forest acreage (14,600 acres within 150 feet of a stream). Conservation easements for these areas should are best accomplished at the county level. In addition, protection and reforestation efforts on riparian land in the remaining two-thirds of the county lack a comprehensive strategy. To reach the goal established by the task force, it will be necessary to complete the action items listed below.

## GOAL:

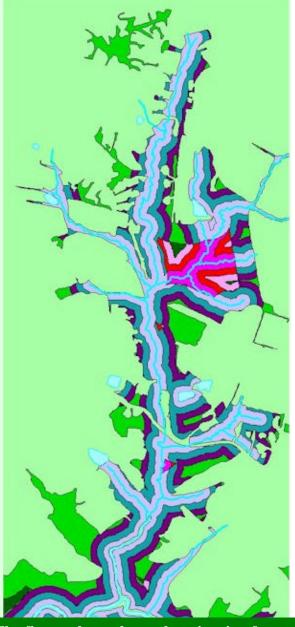
Increase the amount of reforested and protected riparian forest in the county.

## **ACTION:**

- 1. Increase the economic incentive and marketing for existing riparian forest preservation programs in the Agricultural Preservation Areas.
- 2. Support continued federal and state funding of Conservation Reserve Enhancement Program through 2005.
- 3. Reforest a total of 300 acres and protect 1000 acres per year of riparian forest throughout the county for the next five years.
- 4. Identify and inventory all riparian areas that can be preserved or reforested.

A forested buffer can help treat barnyard waste before it reaches the stream.





The figure above shows that riparian forest areas are long and linear forests associated with streams and rivers. We study these forest systems as radiating habitat bands or connectors between forest patches when we seek to develop preservation strategies.

## **UPLAND FORESTS**

The most difficult area for forest protection, preservation, or restoration is on those lands that are at the tops of hills or on gently sloping hills with mild transitions to stream valleys. Without natural constraints like wetlands, floodplains, and steep slopes, these lands are more often targeted for development. This does not mean that they have no potential for forest conservation, it simply means that we must be inventive and willing to think outside our normal frames of reference. The "downcounty" neighborhoods were built 25 to 50 years ago. They were fashioned from agricultural land. Large swaths of green Stream Valley Parks were preserved and still provide a soft respite from the hard edges of urban life. The older neighborhoods, with their large canopies of intertwined branches, were once no different from the "new development" we see moving across the landscape in a wave of land use change.

Time has been the healer. People plant and nurture trees in their front and back yards. Community groups watch the trees along the street and seek help for those trees with disease or damage. The old suburban zone is home to hundreds of thousands of trees. They form a robust overhead tree canopy that is a unique habitat for canopy nesting birds. In addition, these trees form a kind of vertical buffer, shading our homes, roads, and parking lots, and intercepting dust and other air pollutants. They are 50 or more years old and are at the upper limits of urban tree life. We need to maintain this canopy, increase its spread, and prepare for replacement as this protective cover starts to decline. The first step is to get more trees planted in urban and suburban areas. Then we must ensure that these trees are maintained and treated as an infrastructure investment on the same level as the roads, sidewalks, and sewer lines that crisscross beneath this urban forest

canopy. To reach the goal established by the task force, it will be necessary to complete the action items listed below.

## GOAL:

Increase the amount of protected upland forest in the county.

## **ACTION:**

- 1. Identify and prioritize upland forests throughout the county for preservation.
- 2. Increase economic incentive programs (forest banking) for upland forest preservation on private land.
- 3. Protect 500 acres of upland forests per year for the next five years.
- 4. Review and amend development standards that contribute to forest loss and fragmentation.



This figure shows a typical suburban area in Montgomery County. Some lots are covered by canopy and others are covered in lawn. Buildings under the canopy cost less to heat and cool, contribute less storm water runoff to local streams, and use much less energy for maintenance.

## **URBAN STREET TREES**

We usually don't notice the trees that line many of our streets until we are stuck in a traffic jam on a hot summer day. On these occasions, we experience first hand the cooling shade that trees provide and as we look around, we appreciate how tree foliage softens the often harsh concrete and steel environment of our urban communities. And



this urban environment is also harsh on the street trees. Away from the natural soils and biota of forests, trees in urban spaces are subjected to brutal stresses that test all but the creosote-treated telephone poles. It is not uncommon to find a street tree planted in an area no bigger than a bathtub when the roots should be spreading outward as far as the branch tips. With road debris as backfill, deicing salt in place of fertilizer, and an occasional watering splashed up by passing cars, it is not surprising that many street trees perish within a few years of being planted. Those that survive are more susceptible to insect and disease damage due to their stressful conditions. An oak tree that may live to be 500 years old in the forest is lucky to survive 40 years as a street tree. Although we replant over 400 street trees each year, we lose 900 trees during the same period to diseases, insects, and physical damage.

The county and state governments are responsible for the maintenance of all street trees adjacent to public roads. National standards for street tree maintenance specify a five to seven year cycle for every tree over an average life expectancy of 30 to 40 years. The county budget

presently provides enough funding for a 90-year maintenance cycle for *every tree*. This means that over 50 percent of the county's street trees will never receive any pruning, feeding, or injury repairs even if they live to be *40 years old*. To have a five year maintenance cycle, 38,600 trees would have to be trimmed each year. We currently budget enough to trim 2,125 trees per year. To reach the goal established by the task force, it will be necessary to complete the action items listed below.

## GOAL:

Improve the street tree maintenance program to meet state law and national standards.

Some street trees, like this one under a power line, are planted in inappropriate locations.

## **ACTION:**

- 1. Replace current annual operating budget cycle with a "green infrastructure" Capital Improvement Program project for street tree planting and maintenance.
- 2. Develop a long-term street tree planting and maintenance strategy.
- 3. Improve the overall condition of street trees, lower per-tree maintenance costs, minimize liability, reduce storm damage potential, and improve the appearance of street trees and adjacent property values by providing sufficient funding to achieve a six-year maintenance cycle.
- 4. Provide sufficient funding for tree planting to bring the tree maintenance program into compliance with the Maryland Roadside Tree Law and begin reducing the large number of vacant tree planting sites along county roadways.

Most of the Bradford pears (11,000 trees) will need to be removed in the next ten years.

## FORESTS ON PRIVATE LAND

There has been an inherent conflict between community growth and forest preservation. We have all witnessed the rapid loss of a huge piece of our remaining forest cover in Montgomery County: from 143,000 acres in 1973 to 89,000 acres today. As of 1997, only 28 percent of the county is forested. This compared to the nearly 100 percent when the first Europeans arrived 300 years ago. The Maryland Forest Conservation Law, adopted in 1991, has not completely stemmed the loss of trees. Each year, more than 200 acres of upland forests are cleared, but not replaced, for new homes and businesses.

The Legacy Open Space is the chief program for buying privately owned forest properties and protective easements in the county. However, there is no written inventory listing high priority forested lands to guide us. New state and federally funded programs are being implemented to provide farmers with financial incentives to replant and protect unforested riparian buffers. There are thousands of acres of stream sides that remain unforested and provide little protection to the stream from soil erosion, solar heating, and even grazing cattle. The existing programs have inadequate staff to successfully promote these initiatives to the farmers.

## GOAL:

Increase the amount of urban and suburban forests and canopy cover on private properties in the county.

## **ACTION:**



A front yard cherry tree lost half its crown due to clearwing borers.

- 1. Amend the existing Forest Conservation Law so that there is no net loss of forest cover in the county from new development.
- 2. Establish a county tree planting program that encourages volunteer community participation.
- 3. Provide adequate staffing for the enforcement of the Forest Conservation Law and monitoring of forest conservation areas.
- 4. Establish tree planting incentives and technical support to increase canopy cover on private property.
- 5. Establish minimum canopy cover standards for development projects.
- 6. Provide technical assistance to help manage invasive and pest plant and animal species on private land.





## FORESTS ON PUBLIC LAND



Nineteen percent, or 58,500 acres, of land in the county is publicly owned. Of this, 31,513 acres is forested parkland and essentially protected from development or commercial timber harvesting. Of the remaining publicly owned land, including that found in active-use parks, much is covered by roads, buildings, and other structures serving the intended use of the land. There is some land covered in turf or simply not maintained at all that could be returned to forest cover or planted with trees.

Much of the forest cover found in parks is adjacent to developed urban areas and is exposed to the stresses of intensive recreational use, including damage to forested riparian buffers, soil compaction, and disturbance to interior forests from trails and roads. These areas also attract refugee wildlife populations

from adjacent developed areas that easily exceed the carrying capacity of the forest habitat, resulting in the loss of understory plant communities. Stripped of the natural plant communities or invaded by trails and roads, these areas are more susceptible to nonnative, invasive and pest plants and animals.



Highly maintained riparian edge along the trapezoidal channel near Little Falls Parkway.



## GOAL:

Ensure the long-term health and protection of forested areas on public land.

## **ACTION:**

- 1. Develop a strategy to manage invasive and pest plant and animal species on public lands.
- 2. Establish public agency guidelines to restore forest and tree canopy to available open space on public lands.
- 3. Encourage interior forest restoration and preservation by creating "exclusion or limited use" areas.
- 4. Increase funding for public initiatives, such as Legacy Open Space, to purchase and protect high priority forested lands.



Stem counts in a naturally regenerating woodland.

36 percent of the forests in Montgomery County are publicly owned



## FOREST PRESERVATION TASK FORCE

In February 2000, County Executive Douglas Duncan sent letters to prospective forest preservation task force members, asking the task force to review, evaluate, and provide recommendations on a number of issues including: forest fragmentation, wildlife habitat, adequacy of forest cover along streams, loss of forest cover, and street tree maintenance.

Over the next eight months, which included 10 meetings, the task force of twenty organizations. representing the interests of agriculture, business, citizens groups, environment, public utilities, and county, state, and municipal government studied and discussed the issues related to forest preservation in Montgomery County. They toured the county for a firsthand look at the problems and successes of forest conservation as practiced today. Staff helped the task force set up a Web site that gave the task force members and other interested citizens 24-hour access to the information on the task force's work. The Web site also allowed the task force to exchange information on the issues during the weeks between meetings.











The Forest Preservation Strategy before you is a consensus of the task force and may not necessarily reflect the policies or views of individual task force members or organizations.

Task force staff conducted presentations on four general categories: riparian forest preservation, upland forest preservation, urban street tree preservation, and public/private lands forest preservation. Out of this, the task force developed goals and action items for further discussion and then used ranking ballots to prioritize them.





#### RIPARIAN FOREST

are wooded areas associated with streams or waterways. These forests have a certain species composition and wildlife community associated with them.











URBAN STREET TREES are trees that are maintained by the Montgomery County Department of Public Works.

PUBLIC/PRIVATE FORESTS are forests and trees on private property including new developments as well as public parkland and other public lands.





## TASK FORCE MEMBERS

#### **AGRICULTURE**



#### NORMAN MEASE, FARMING COMMUNITY

For many decades, agriculture has recognized the importance of trees in conserving its most valuable assets of soil and water.

#### MARSHAL REA, MONTGOMERY COUNTY SOIL CONSERVATION DISTRICT



The Forest Preservation Strategy must respect private property rights and work for the conservation of our forestry resources in Montgomery County.

#### **BUSINESS**



#### MARTY MITCHELL, MD NATIONAL CAPITAL BUILDING INDUSTRY ASSOCIATION

All members of the building industry are interested in working together with the county to preserve and enhance trees. We hope the task force can come up with constructive ideas that increase forests in the county while not crippling its economic development.

#### **CITIZEN GROUPS**



#### JOSEPHINE ALLEN, LEAGUE OF WOMEN VOTERS

Forest preservation in Montgomery County means a healthier life for all citizens and a more beautiful place to live.

#### DALE TIBBITTS, ALLIED CIVIC GROUP



The trees in our forests, parks, open spaces, neighborhoods and urban centers are part of the green infrastructure that sustains the quality of life in Montgomery County. We must protect and increase this valuable asset.

#### ENVIRONMENTAL



#### CHERYL KOLLIN, AMERICAN FORESTS

Trees provide many ecological and economic values including reducing storm water runoff and improving water and air quality. These qualities need to be incorporated into land use planning and forest management decisions.

#### NEAL FITZPATRICK, AUDUBON NATURALIST SOCIETY



The Chesapeake Bay ultimately depends on the quality and quantity of the rainwater that flows through its watersheds. No other land use- farm field, lawn, parking lot, or pasture, delivers clean water like water filtered through a forest.

#### JOE HOWARD, FOREST CONSERVANCY DISTRICT BOARD

Anything we can do to increase forest cover should be done. More trees make Montgomery County more livable.



#### COUNTY GOVERNMENT

#### JIM CALDWELL, DEPARTMENT OF ENVIRONMENTAL PROTECTION

Trees are a vital part of the quality of life in Montgomery County. Recognizing and investing in trees as "green" infrastructure will be a key component of a successful forest preservation strategy.



#### JEREMY CRISS, DEPARTMENT OF ECONOMIC DEVELOPMENT

The preservation of forest areas represents an economic and environmental public policy.



I don't know of any other single thing that contributes as much as trees do to the quality of urban life: cooling shade, protection from cold winds, slowing of storm water run-off, protection from soil erosion, air purification, branches to swing from or climb on, habitat and food for many animals, and year-round beauty.



#### GUY TURENNE, DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION

For all the benefits they provide, we can never have enough trees.

#### MICHAEL SUBIN, MONTGOMERY COUNTY COUNCIL

Trees and forests enrich our communities and our lives. The work of this task torce is an important first step to ensure that these natural resources will be preserved for the enjoyment of our families and future generations.



#### MUNICIPAL AND STATE GOVERNMENT

#### CHARLIE LOEHR, MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

The M-NCPPC and the Montgomery County Planning Board are at the forefront of efforts to preserve forests in the county as part of our long term planning, development review, and parkland stewardship. We welcome additional emphasis and opportunities for coordination that the Forest Preservation Strategy should provide.



#### RICH DOLESH, MD DEPARTMENT OF NATURAL RESOURCES

Montgomery County stands as a leader among local governments in Maryland in developing a comprehensive strategy for forest preservation.



While all plants produce oxygen, the breath of life, the maximum producer of clean, renewable, breathable, life sustaining oxygen is mature tree canopies. Trees supply oxygen for life, water vapor and shade.



#### DAVE PLUMMER, MD DEPARTMENT OF NATURAL RESOURCES

I am excited to see Montgomery County focusing effort on managing forest and tree resources to provide aesthetic and recreational benefits for the public. It is important to do this and, at the same time, preserve landowner rights to practice sound stewardship for environmental as well as economic values.



#### DAVE BAILEY, POTOMAC ELECTRIC POWER COMPANY

PEPCO has made a strong commitment to environmental stewardship and looks forward to working with Montgomery County to achieve the goals developed for forest restoration and protection.



#### JIM BENTON, WASHINGTON SUBURBAN SANITARY COMMISSION

The Washington Suburban Planning Commission supports forest conservation and sound forest management practices from social, ecological, and source water protection perspectives.





## WHERE TO GO FOR MORE INFO

#### **Montgomery County Forest Preservation Strategy**

www.askdep.com

Lonnie Darr, Montgomery County DEP 240-777-7703

#### **Federal and State Forest Programs**

Conservation Reserve Enhancement Program: J.G. Warfield NRCS 301-590-2855 Forest Stewardship: David Plummer, Maryland Department of Natural Resources 301-854-6060

Forest Banking: Cathy Conlon, M-NCPPC 301-495-4542

#### **County Parks Management**

Parks Planning: Mark Wallace, M-NCPPC 301-650-4389

Natural Resource Analysis: Dr. John Hench, M-NCPPC 301-650-4370

Park Maintenance: M-NCPPC 301-495-2500

Wildlife Management: Rob Gibbs, M-NCPPC 301-949-2909

#### **Forest Conservation Law**

Development Guidelines: Cathy Conlon, M-NCPPC 301-495-4542

#### **Legacy Open Space Program**

Acquisition Plans: Mary Dolan, M-NCPPC 301-495-4540

#### **Street Trees**

State Laws & Technical Assistance: David Plummer, Maryland Department of Natural Resources 301-854-6060

County Maintenance Program: Guy Turenne, Montgomery County DPWT 240-777-7623

#### **Forest Education and Activism**

American Forests: Cheryl Kollin, 202-955-4500

Audubon Naturalist Society: Neal Fitzpatrick, 301-652-9188

MD Alliance for Greenway Improvement & Conservation: Bob DeGroot, 301-340-8348

Sierra Club: Ed Merrifield, 301-590-0405

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